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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,512	07/16/2003	Ji Hwan Keum	1670.1009	7512
49455	7590	03/21/2006	EXAMINER	
STEIN, MCEWEN & BUI, LLP 1400 EYE STREET, NW SUITE 300 WASHINGTON, DC 20005			BUEKER, RICHARD R	
			ART UNIT	PAPER NUMBER
			1763	

DATE MAILED: 03/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

CM

Office Action Summary	Application No. 10/619,512	Applicant(s) KEUM ET AL	
	Examiner Richard Bueker	Art Unit 1763	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 and 32-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 and 32-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Claims 4, 14 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicants' specification as originally filed did not disclose an embodiment in which an inner member was suspended from an upper edge of the main body and also supported by a fixing portion which extends downward from the baffle board as now claimed in claims 4 and 14.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 1-20 and 22-34 are rejected under 35 U.S.C. 103(a) as obvious over Shen (2,793,609) taken in view of Dlouhy (German 2612424), Spahn (6.237, 529) and/or Adams (3,466,424). Shen (Figs. 1-3) discloses a heating crucible for a deposition apparatus comprising a main body having a space for receiving a coating material to be vaporized and a nozzle for discharging vapor onto a substrate intended to be coated, and an inner member such as a baffle board which has one or more openings formed around its edge in the same manner as illustrated in applicants' Fig. 4, for example. The claim 1 limitation of "which receives an organic compound" is a recitation of intended use of the claimed apparatus and the present apparatus claims are not limited to use with any one particular type of coating material. The apparatus of Shen has an inherent capability of being used with an organic compound of the type recited in applicants' recitation of intended use. Regarding the newly added limitation of the inner member being suspended from an upper edge of the main body, it would have been obvious to suspend the inner member of Shen in this manner because Dlouhy, Spahn and Adams (3,466,424) teach that an inner member can successfully be supported in a crucible by suspending it from an upper edge of the main body of the crucible. Regarding the newly added limitation of one or more holes which are bordered on outsides thereof by an inner wall of the main body, it is noted that the phrase "bordered on" can mean "near a border" (see attached dictionary definition).

Claims 4 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shen (2,793,609) taken in view of Dlouhy (German 2612424), Spahn (6.237, 529) and/or Adams (3,466,424) in view of Witzman (6,202,591). Shen doesn't disclose the

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use of a fixing member that extends downward from his baffle. Witzman (Fig. 2B), however, teaches that a fixing portion that extends downward can successfully support a baffle. It would have been prima facie obvious to provide the baffle plate of Spahn with a fixing portion that extends downward because Witzman teaches that a vapor coating process can be successfully performed by supporting a baffle in that manner.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shen (2,793,609) taken in view of Dlouhy (German 2612424), Spahn (6,237, 529) and/or Adams (3,466,424) for the reasons stated above, and taken in further view of Tiedje (5,944,903) (see Fig. 6) or Tanabe (2001/0008121) (Fig. 1). It would have been obvious to one skilled in the art to provide the vaporizing crucible of Shen with a temperature-sensing unit because each of Tiedje and Tanabe teaches that a vapor deposition process can desirably be more accurately controlled by measuring the crucible temperature.

Claims 1-3, 5-13, 15-20, 22-25 and 32-34 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Spahn (6,237,529). Spahn (Figs. 1-9) discloses a heating crucible for an OEL deposition apparatus comprising a crucible having a main body having a space for receiving OEL material to be vaporized, a nozzle orifice for directing vaporized OEL material onto a substrate to be coated, and an inner baffle member installed within the main body having one or more openings formed around the edge of the inner baffle member. Also, each of Taguchi (see Figs. 1a and 1b, col. 2, lines 48-53 and col. 3, lines 35-41, for

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example) and Nakagiri (Figs. 1-3 and abstract) are cited of interest to show that an evaporation crucible orifice of the type disclosed by Spahn is recognized and known in the prior art as a nozzle. Therefore, Taguchi and Nakagiri provide evidence that one skilled in the art would consider the orifice of Spahn's apparatus to inherently or at least obviously be a nozzle. Also, Spahn's inner member is suspended from an upper edge of the main body as now claimed, because it is part of the cap which is suspended from an upper edge of the main body.

Claims 4 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spahn (6,237,529) in view of Witzman (6,202,591). Spahn doesn't disclose the use of a fixing member that extends downward from his baffle. Witzman (Fig. 2B), however, teaches that a fixing portion that extends downward can successfully support a baffle. It would have been prima facie obvious to provide the baffle plate of Spahn with a fixing portion that extends downward because Witzman teaches that a vapor coating process can be successfully performed by supporting a baffle in that manner.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Spahn (6,237,529) taken in view of Van Slyke (2003/0101937) (paragraph 53) or Tanabe (2001/0008121) (Fig. 1). It would have been obvious to one skilled in the art to provide the vaporizing crucible of Spahn with a temperature-sensing unit because each of Van Slyke and Tanabe teaches that an OEL vapor deposition process can desirably be more accurately controlled by measuring the crucible temperature.

Claims 1-20 and 22-34 are rejected under 35 U.S.C. 103(a) as obvious over Witzman (6,202,591) taken in view of Dlouhy (German 2612424), Spahn (6,237, 529)

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and/or Adams (3,466,424). Witzman's apparatus (see Fig. 2B) includes an opening surrounding (i.e. around) an internal baffle plate, wherein a transmission direction of the vapor through the opening is perpendicular to an upper wall of the main body.

Regarding the newly added limitation of the inner member being suspended from an upper edge of the main body, it would have been obvious to suspend the inner member of Shen in this manner because Dlouhy, Spahn and Adams (3,466,424) teach that an inner member can successfully be supported in a crucible by suspending it from an upper edge of the main body of the crucible.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Witzman (6,202,591) taken in view of Dlouhy (German 2612424), Spahn (6,237, 529) and/or Adams (3,466,424) and in further view of Tiedje (5,944,903) (see Fig. 6) or Tanabe (2001/0008121) (Fig. 1). It would have been obvious to one skilled in the art to provide the vaporizing crucible of Witzman with a temperature-sensing unit because each of Tiedje and Tanabe teaches that a vapor deposition process can desirably be more accurately controlled by measuring the crucible temperature.

Applicants have argued that the cited prior art does not teach the newly added claim language. Regarding the newly added limitation of the inner member being suspended from an upper edge of the main body, it is noted that Spahn's inner member is suspended from an upper edge of the main body. Also, it would have been obvious to suspend the inner member of Shen or Witzman in this manner because Dlouhy, Spahn and Adams (3,466,424) teach that an inner member can successfully be supported in a crucible by suspending it from an upper edge of the main body of the

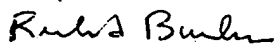
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crucible. Regarding the newly added limitation of one or more holes which are bordered on outsides thereof by an inner wall of the main body, it is noted that the phrase "bordered on" can mean "near a border" (see attached dictionary definition).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Bueker whose telephone number is (571) 272-1431. The examiner can normally be reached on 9 AM - 5:30 PM, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parvis Hassanzadeh can be reached on (571) 272-1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Richard Bueker
Primary Examiner
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